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A Review of Road Sector Reforms in Tanzania

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The opinions and conclusions expressed here are those of the authors and do not necessarily reflect the views of the Sub-Saharan Africa Transport Policy Program, the World Bank, UNECA, or any of their affiliated organizations.

TABLE OF CONTENTS

ABBREVIATIONS AND ACRONYMS.....	IV
PREFACE	V
SYNOPSIS.....	VII
I. THE STUDY CONTEXT.....	1
II. THE STUDY OBJECTIVE	2
III. INSTITUTIONAL AND MANAGEMENT STRUCTURE.....	3
ROAD FUND BOARD.....	3
ROAD EXECUTING AGENCIES	4
IV. PROCESS.....	8
ADEQUACY OF ROAD FINANCING.....	8
THE DISBURSEMENT PROCESS.....	11
REVENUE COLLECTION AND RELEASE PROCESS.....	12
PERFORMANCE MONITORING	12
V. OBJECTIVE ACHIEVEMENTS	15
QUALITY OF THE ROAD NETWORK	15
OPERATIONAL EFFICIENCY	17
RESOURCE ALLOCATION	23
VI. CONCLUSIONS	24

ABBREVIATIONS AND ACRONYMS

CEO	Council Engineer's Office
CTLA	Central Transport Licensing Authority
DANIDA	Danish International Development Agency
DC	District Council
DE	District Engineer
DMT	District Management Team
FY	Fiscal year (July 1 to June 30)
GDP	Gross Domestic Product
IRP	Integrated Road Project
IRP	Integrated Road Project
MC	Municipal Council
MoF	Ministry of Finance
MoW	Ministry of Works
MRALG	Ministry of Regional Administration and Local Government
NBC	National Bank of Commerce Limited
NMB Ltd	National Microfinance Bank Limited
NRB	National Roads Board
PORALG	President's Office Regional Administration and Local Government
PS	Permanent Secretary
RAS	Regional Administrative Secretary
RF	Road Fund
RFB	Road Fund Board
RMI	Road Management Initiative
RSDP	Road Sector Development Program
SADC	Southern Africa Development Community
SSA	Sub-Saharan Africa
SSATP	Sub-Saharan Africa Transport Policy Program
TanRoads	Tanzania Roads Agency
TRA	Tanzania Revenue Authority
TSh	Tanzanian shilling

TSh 967.00 = US\$ 1.00 [as of April 2002]

PREFACE

Tanzania has been one of the countries at the forefront of reforms inspired by the Road Management Initiative (from the outset). This paper focuses on some of the main challenges that the country now faces in consolidating an institutional structure — setting up both the road fund and a new main road agency — to carry the reform process forward and secure sustainable improvements in road sector performance. The paper is based on extensive fieldwork and stakeholder interviews carried out in 2001 as well as on a review of the major lessons emerging from past reform experience in Tanzania. This case study — the second in a series issued by the RMI — will contribute to the preparation of an intensive program of support to Tanzania from RMI which has been agreed as part of the RMI Interim Work Plan for 2002.

The SSATP is keen to ensure that greater efforts are devoted to the generation of new knowledge and its effective dissemination to countries, partner organizations and donors. Discussion Papers will provide an additional channel alongside Working Papers, Technical Notes, the website, videos and CD-ROMs. They will focus on exposing and analyzing case studies of promising or innovative practices – both at country and subregional level – and are intended to stimulate discussion and reflection on lessons learned and their applicability. Consequently, comments, responses or reactions to this paper are encouraged and can be forwarded to me at nings@worldbank.org or to the RMI component Manager Stephen Brushett at sbrushett@worldbank.org. While the current paper is issued by the RMI component, it is expected that there will be offerings from the other components of the SSATP. We anticipate authors being drawn from a variety of sources, including but certainly not limited to program management, consultants and country coordinators.



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SSATP Program Manager

SYNOPSIS

This paper reviews the empirical evidence with the road fund and road agency in Tanzania and makes recommendations to strengthen the impact of the reform program as the country moves on to consolidate the first phase of reforms, in light of similar initiatives in other countries in the Sub-Saharan Africa (SSA).

Tanzania was one of the first countries to adopt the Road Management Initiative (RMI) principles in developing maintenance management and financing policies in 1987. The initial attempts were not very successful as the road funds were established in the early 1990s as part of an administrative procedure and the declarations had no legal force or liability for compliance. In an attempt to give the Fund some legal force and secure stable financing for road maintenance, the Parliament of the United Republic of Tanzania enacted the Roads Tolls Act in December 1998, establishing the Road Fund (RF) and the RF Board (RFB). The main source of funding is the fuel levy and the Board has nine members, of whom four are from the user groups and the private sector.

As part of the reform program, Tanzania National Roads Agency (TanRoads) was established on July 1, 2000, under the Executive Agencies Act, with the primary responsibility to undertake procurement and management of road contracts and provide advice to the Minister on regulations and road standards. The role of the Ministry of Works (MoW) was restructured with a focus on policy formulation, strategic planning and regulation.

The available evidence suggests that: (a) the establishment of TanRoads has not been accompanied by a detailed business plan, a well defined work program, a clear statement of purpose and management objectives founded in sound business practices with clear lines of responsibilities. The staff is largely seconded from the MoW, without matching to the needs for the program on-hand, resulting in high administrative cost; (b) the RF is neither sufficient to address full maintenance needs nor is it being put to use most effectively. In many respects, the RF continues to suffer from some of the drawbacks of the first generation road funds—the user generated fees are channelled into the RF through the budget; money is debited from the RF account after instruction from the Permanent Secretary (PS) in the Ministry of Finance; and requests from the RFB to streamline flow of funds and divert revenues from existing charges not accruing to the RF do not receive an adequate and positive response. The RF continues to be a part of the regular budget process, even though it is supported by user charges; (c) fuel levy collection process is complicated with a number of entities involved, long transit time for the funds and unpredictability in release of funds; (d) arrangements to plan, program, implement and monitor disbursements to district councils are weak and present a special challenge.

However, the road sector institutional reforms carried out—TanRoads with its improved management and information systems and the RFB, with the responsibility to manage and monitor use of funds, are expected to go a long way towards better prioritisation and management of maintenance activities. The paper has made a number of recommendations to strengthen the road reform program, especially focused on: (a) strengthening the management capacity of TanRoads supported by a well defined business plan and staff recruited on a competitive basis under performance contracts, with direct relevance to the program on-hand. The agency should grow with the work program, have a highly qualified staff with a balanced mix of key specializations, including environment, procurement and social science specialists; (b) establishing the TanRoads advisory board independent of the RFB to separate purchaser functions from those of the service provider; (c) establishing reporting arrangements and performance monitoring indicators to monitor progress in the implementation of the reform program; (d) defining institutional responsibility for planning, programming, implementing and monitoring disbursement arrangements, particularly for the district councils; (e) improving inter-sectoral coordination to mainstream social impact monitoring and to place transport within the core of the poverty dialogue agenda; (f) developing clearly defined performance agreements between the RF and TanRoads, MoW and the district councils. The agreements should identify the set of responsibilities and obligations on part of each of the agencies in the performance of their functions; (g) diversifying and stabilizing the RF based on assessed maintenance needs of the road network. As the total revenue from user fees is less than the total cost of maintaining the road network, the difference should be made from loans and contributions from the government; and (h) developing cost-sharing formula to finance maintenance needs of urban and rural roads.

I. THE STUDY CONTEXT

Tanzania was one of the first countries to adopt the Road Management Initiative (RMI) framework to reform the road management and maintenance systems². With a view to addressing the classified road maintenance needs, the Parliament of the Republic of Tanzania enacted the Roads (Amendment) Tolls No. 2 Act in July, 1985. The Funds were to be realized from collection of tolls and treated as part of the normal government taxes. The first generation of road sector reforms in Tanzania were incorporated into the design of the first road sector recovery program (Integrated Road Project—IRP, 1990). Two Road Funds were established under two separate declarations by the Minister of Finance—the first “Declaration to establish a special Road Fund” was made in August 1991, with the objective to finance maintenance and rehabilitation costs for the regional core network; and the second “Declaration to establish the local government Road Fund” was made in August 1992, with the objective to finance urban and district roads. However, the Funds were established as part of an administrative procedure and the declarations had no legal force or liability for compliance.

In an attempt to give the Fund some legal force and secure stable financing for road maintenance, the Parliament of the United Republic of Tanzania enacted the Roads Tolls Act in December 1998, establishing the Road Fund (RF) and the RF Board (RFB). The Act ring-fenced 90 percent of the funds for road maintenance and no more than 10 percent for road development, upgrading and for local costs of compensation and counterpart funds for projects financed by donors.

During the donors’ conference to launch the IRP phase 2 in May 1995, the then Minister for Works, Communications and Transport stated that “reforms are underway to transform the Directorate of Roads into an autonomous and commercially oriented agency.”³ The Tanzania National Roads Agency (TanRoads) was established on July 1, 2000, under the Executive Agencies Act, with the responsibility for management of the mainland’s trunk and regional road network. As part of the Act, the new role of MoW was to focus on policy formulation, strategic planning and regulation in the road sub-sector.

² The Government recognizes the strategic importance of the road sector to the national economy, particularly rural development and poverty alleviation. Currently, the road network accounts for about 70 percent of internal freight traffic and contributes 5 percent of the total GDP.

³ In 1997, the Parliament enacted the Executive Agencies Act, with the objective to divest the Government of its core functions to semi-autonomous agencies, specifically aimed at: (a) empowering a minister to establish an executive agency for the purpose of carrying out the functions of a department; (b) defining functions of executive agencies and operational principles; (c) defining roles of permanent secretaries and the Ministerial Advisory Board; and (d) setting a basis for financial and related matters.

The structure of the road sector reform program introduced in Tanzania is along the lines of the four building blocks as discussed by the RMI (Heggie, 1995)⁴:

- *Management*—establishment of TanRoads to operate as a business like road agency
- *Financing*—establishment of a road fund by introducing an explicit road tariff to manage demand and generate the revenues necessary to support the operation and maintenance of roads
- *Responsibility*—a consistent organizational structure for managing different parts of the road network--the MoW can be viewed as the *Client*, while RF Board as a *Purchaser* and TanRoads as a *Service Deliverer* for main roads and local government for district and urban roads
- *Ownership*—user involvement in the management of the RF.

II. THE STUDY OBJECTIVE

The objective of this study is to (a) evaluate the implementation performance of the reform program as measured against the stated objectives of the four building blocks; (b) examine the impact of the reform program on quality and quantity of the road network; and (c) make recommendations to strengthen the reforms as the country moves on to consolidate the first phase of reforms, in the light of lessons learnt from similar initiatives in other countries in the Sub-Saharan Africa.

Following this section, the paper is divided in four sections. Section III presents the *institutional and management structure* of the RF administration and executing agencies (logically derived from the declared objectives of second generation road funds) (Heggie, 1995), including the strength of the legal basis of the RF; the size, composition and functions of its management Board; the structure of executing agencies; and the clarity of responsibilities of different agencies).

Section IV analyses the *process* of implementing the RF, including the way in which revenue and expenditure totals are set, funds transferred and secured, expenditure allocated, monitored and audited. Section V evaluates the *objective achievements*, including trends in allocation and disbursement, efficiency of implementation and the impact on quality of road works. The key conclusions and recommendations are presented in Section VI.

⁴ Heggie, Ian G. *Management and Financing of Roads: An Agenda for Reforms*, World Bank Technical Paper No 275, 1995.

III. INSTITUTIONAL AND MANAGEMENT STRUCTURE

Road Fund Board

The Parliament of the United Republic of Tanzania enacted the Roads Toll Act (Amendment No. 2) in December 1998, establishing the RF and the RFB, with the following provisions:

- (a) all monies collected as road tolls imposed on diesel and petrol, transit fees, heavy vehicle licences, vehicle overloading fees or from other sources at the rates to be determined by the Parliament from time to time shall be paid into the Fund;
- (b) all monies collected as roads tolls shall be deposited in the account of the Fund;
- (c) at least 90 percent of the money deposited in the Fund shall be used for maintenance and emergency repair of classified roads and related administrative costs in Mainland Tanzania in accordance with approved operational plans made by TanRoads and local authorities; and
- (d) a maximum of 10 percent of the money deposited in the Fund may be used for road development and related administration costs in accordance with plans and budgets approved by the Parliament.

Board Composition

The RFB is to consist of nine members:

- one chairperson, appointed by the President;
- three Permanent Secretaries of the ministries responsible for roads, finance and local government;
- one senior civil servant not below the rank of director from any ministry; and
- four road user representatives from the private sector (current members represent: Tanzania Truck Owner Association, Tour Operator Association, Tanzania Federation of Cooperatives and Tanzania Roads Association)

The RFB also is to serve as a Ministerial Advisory Board for the National Roads Agency (TanRoads). The Board is to put in place a Secretariat to manage the day-to-day activities. The secretariat is composed of a RF manager, two planning and monitoring engineers, one accountant and five support staff. The manager is appointed through a competitive process for a period of five years at a time.

Board Functions

The Board is to be responsible for:

- advising the MoW on new sources of road tolls, adjustment of rates and regulations for collection
- resource generation, allocation and monitoring of funds disbursed to the executing agencies
- developing a formula for allocation and disbursement to TanRoads, local authorities and other agencies
- appointing auditors to carry out audit of the RF to ensure that the funds are being used in a technically and financially sound manner consistent with its purposes approved by the Parliament and in accordance with the formula for allocation

Road Executing Agencies

Trunk and regional roads are the responsibility of the newly created agency TanRoads. Responsibility for managing district and urban roads rests in the President's Office Regional Administration and Local Government (PORALG) with the RF District and Urban Roads Monitoring and Coordination Unit. Key responsibilities of the Unit are to: (a) oversee planning and monitoring of the road maintenance activities, financed by the RF; and (b) support preparation of District Roads Development Plans.

TanRoads Structure

TanRoads was established on July 1, 2000, under the Executive Agencies Act. As part of the Act, the new role of the MoW⁵ is to focus on policy formulation, strategic planning and regulations in the road sub-sector. The Ministry is to provide strategic management for TanRoads by way of a policy framework under which all road maintenance and construction works are to be executed.

The Agency is headed by a Chief Executive, appointed by the Minister, with the responsibility for the day-to-day management of the Agency, proper management of the Agency's funds, property and business and for the personnel management, organization and control⁶. The Chief Executive is accountable to the PS, MoW and the RFB. The PS, MoW is

⁵ The Ministries of Works, Communications and Transport have been split and merged a number of times over the past two decades. In October 1995, a separate Ministry of Works (MoW) and Ministry of Communications and Transport (MoCT) were set up.

⁶ The Norwegian Government finances the Chief Executive post of TanRoads for an initial period of 2-3 years.

responsible for the strategic management of TanRoads. The Chief Executive enters into a performance agreement with the PS, MoW and the RFB.

The main functions of TanRoads are to:

- (a) undertake procurement and management of contracts for design, maintenance, emergency repair, spot improvements, rehabilitation, upgrading and construction of roads under its control
- (b) improve road safety
- (c) perform any work on district roads, on request from local authorities, and charge a fee for that service
- (d) establish and maintain appropriate road databank
- (e) establish and operate weigh-bridges and enforce axle load control
- (f) manage contracts on operations of ferries
- (g) advise the Minister on regulations and standards for road works

TanRoads has four functional divisions headed by four Directors with the following functions: (a) maintenance; (b) development; (c) technical; and (d) finance and administration. In addition, TanRoads has been charged with the management and operation of the former MoW departments, comprising:

- TANWEIGH—portable and fixed weighbridge operations
- TANLAB—formerly MoW Central and Regional Materials Laboratories
- EHU—Equipment Hire Units at Tanga, Morogoro, Mbeya and Kibaha

Each of these responsibilities is established within TanRoads as separate subsidiary businesses with a view to possible further rationalization or development into separate executive agencies or full privatisation.

According to the Establishment Order for TanRoads, the RFB is to act in the capacity as a Ministerial Advisory Board to the Ministry and the PS on the strategic objectives of the Agency, priorities and annual performance targets, and the acceptability of the Chief Executive's plans, associated budgets, annual reports and accounts. The Chief Executive is to be accountable to the PS and the RFB as described in the Governance Clause of the Establishment Order 2000.

TanRoads structure is based on 4 zones with 20 regions. The recruitment of senior staff is more or less complete, and over 1,100 staff from MoW were seconded to TanRoads. The precise future staffing level is not yet clear, but it is expected that the agency will confirm the appointment of about 500-700 seconded staff to cover administration, maintenance and development activities during the FY02. The remainder of seconded staff will revert to MoW for reallocation or retrenchment.

Comments

The creation of a semi-autonomous road agency with the responsibility for works execution and supervision, restructuring the role of the Ministry as policy and planning advisory body and setting up an autonomous body to ensure stable and secure financing for road maintenance are steps in the right direction and in the spirit of the RMI reforms. However, implementation of the reforms has fallen short of the stated objectives.

Management and responsibility. One of the requirements is to create a more businesslike road agency with a consistent organizational structure and clear lines of responsibilities for managing different parts of the road network. While the creation of TanRoads, as an executing body satisfies the requirement of separating client (MoW) responsibility from that of service deliverer, the modalities and structure of TanRoads, as currently in place, is not suitable for efficient delivery of road services:

- (a) The Agency, with a staff of over 1,100 persons seconded from the Ministry and without a clear understanding of its mission objectives, functions and a work program is not much different from the earlier practice where the MoW was both the client and the service provider. The reporting arrangements between the regional and zonal offices and the headquarters are not clearly identified. Multiplicity of agency responsibilities, including road development and maintenance along with other subsidiary business (weighbridge operation, laboratories and equipment hire units), in absence of a clear identification of the tasks involved and an overall strategy, leads to inefficient operation. In addition, absence of a detailed road condition survey prior to handing over maintenance obligation to TanRoads compromises assessment of TanRoads performance and the impact of maintenance expenditure.
- (b) The TanRoads management advisory board is synonymous with the RFB. This arrangement defeats the purpose of separating purchaser functions from those of service provider.
- (c) The transfer of responsibility for district and urban roads from MoW to Local Government has not been smooth because: (i) there has not been an adequate transfer of staff to the local government the unit being staffed by only two professional engineers; and (ii) the integration of the unit into local government has not been completed due to budget and procedural constraints. As a result, it

is not able to perform its key function of planning and monitoring of district roads and providing guidance to the Council engineers.

In view of the overlapping functions, lack of clear lines of responsibilities and absence of a businesslike culture in the executing agency, there is a need to:

- Rationalize the staff and design the Agency in an efficient and effective manner, operating in a commercial environment, directly related to the Agency's work program and development needs of the sector. This would involve recruiting highly qualified staff for technical and financial management with a balanced mix of key specializations, including environment, procurement and social science specialists.
- Contract out specific specialized works to reduce overhead costs and improve efficiency in the delivery of services. The maintenance works for trunk and regional road network have already been transferred to TanRoads. The plan of action for achievement of its full operational capacity should include details of a gradual and transitional transfer of the remaining activities of the MoW related to development projects. A related issue is the need to institute road audits to ensure compliance with efficiency standards and implement performance-based multi-year area-based contracts (discussed in section V).
- Develop a plan of action to separating subsidiary businesses to allow TanRoads to focus on the most immediate tasks of road development and maintenance.
- Establish an oversight board for TanRoads, independent of the RFB, with a view to monitor performance of its activities and enter into performance agreements with the Ministry and the RFB.
- Strengthen monitoring and evaluation capacity of the MoW.
- Develop a restructuring plan for the Ministry with a focus on strategic management, planning and policy development; identify key areas of focus, professional requirements, scope of work and a well-defined relationship with the executing agency and the road fund. Lack of clear lines of responsibilities between the MoW, the Ministry of Finance (MoF), TanRoads and the RFB in the recent past have adversely impacted the delivery of services.

Financing. Setting up the RF with dedicated financing from road user fees has made available more money for road maintenance than in the past. However, *neither* is the money sufficient to address full maintenance needs *nor* is it being put to use most effectively (see Section IV for more details). In many respects, the RF continues to suffer from some of the deficiencies of the first generation road funds—the user generated fees are channelled into the RF through the budget; money is debited from the RF account after instruction from the PS, MoF; and requests from the RFB to streamline flow of funds and divert revenues from existing charges not accruing to the RF do not receive adequate acceptance. The RF continues

to be a part of the regular budget process, even though it is supported by user charges. Absence of independent audits of the collections and disbursements do little to strengthen market discipline.

IV. PROCESS

Adequacy of Road Financing

The current sources of revenue of the RFB are:

- *Fuel levy.* The rate of fuel levy increased from 7 TSh per liter (USc 2.0) in 1991 to 70 TSh in 1998 (USc 10.6) to 80 TSh in 2001 (USc 9.0)⁷.
- *Transit charges.* The transit fees are paid by foreign vehicles when entering Tanzania, which amounted to 800 million TSh in the FY99 and 950 million TSh in the FY01. There are eight transit charge entry points in Tanzania and charges from the collection centers are banked in the value added tax commissioner account from which the balance is transferred to the Treasury. The PS, MoF authorizes transfer of the transit fees from the exchequer to the RF account.
- *Overloading fees.* The license fee is collected by the Central Transport Licensing Authority, and was about 600 million TSh in the FY00 and 1.1 billion TSh in the FY01.
- *Heavy vehicle license fees.* The vehicle license fee is collected by the Central Transport Licensing Authority (CTLA) for inter-regional operations; and by Regional Transport Licensing Authorities (RTLAS) for intra-regional operations. The RF is entitled to receive 52 percent of the revenues from this fee. However, there is at the moment no clear definition of a heavy vehicle in the legislation. The Roads Traffic Act of 1973 only provides definition of goods vehicle,

⁷ Table: Breakdown of fuel prices (May, 2001)

Components	Petrol (TSh)	Diesel (TSh)
CIF Dar es Salaam	175.2	182.9
Excise, VAT, dealer margin	314.8	262.1
Fuel Levy	80.0	80.0
Pump Price	570.0	525.0

The fuel price in Tanzania is currently the lowest in the East African Community—comparator petrol price per liter in TSh are: Kenya (621), Uganda (709), Mozambique (495), Malawi (643)

commercial vehicle and public service vehicle. So far, revenues of this source have not been paid to the RF due to a conflict between the Board and the CTLA.

During the FY01, total collections were TSh 45,798 million, of which fuel levy was TSh 43,486 million; transit charges TSh1,150 million and overloading fees TSh1,161m. Actual receipts fell short of the total collection by about 12 percent. Table 1 shows the total amount received by the RFB during the FY00 and FY01.

Table 1: Road Fund Board Financial Statement

	FY00 (TSh million)	FY 01 (TSh million)
Receipts		
Fuel Levy	37,724	39,565
Transit Charges	505	948.4
Overloading fees	600.0	1,150
Donor Assistance (2)		16.2
Interest revenue		15.6
Misc. income		2.3
<i>Total Receipts</i>	<i>38,829</i>	<i>41,697(US\$48 m)</i>

Source: Roads Fund Board, Annual Report, 2000/2001

The RF revenues are used for development, maintenance, emergency works and related administrative costs as specified in the Act (for details see disbursement criteria process). As a result, RF revenues are sufficient to address less than 30 percent of the road network assessed maintenance needs⁸, requiring development of an integrated road sector maintenance strategy, including:

- focus of RF activities should shift from development and other capital expenditures⁹ (backlog maintenance) to addressing maintenance oriented programs;

⁸ In absence of detailed inventory of the road network (including road length, type, condition, topography), an assessment of road maintenance need is a theoretical exercise, assuming that all are in a condition requiring only routine and periodic maintenance. Rough estimates of road maintenance needs suggest a total annual requirement of US\$90.8 million--paved roads (US\$20.9 million); unpaved roads US\$52.5 million); and earth, district and feeder roads (US\$17.5 million).

⁹ Currently there is a huge backlog of maintenance amounting to about US\$600 million, as estimated under the Urgent Rehabilitation of Road Program. Not only is the available budget for road maintenance inadequate, the RFB comes under increasing pressure to improve poor road quality by providing emphasis on spot improvement and emergency works, further compromising the maintenance budget.

- funding for all development and backlog maintenance should be provided from other sources (direct Government contribution and donor financing);
- development and support of an integrated road financing strategy—setting up a detailed road management system to address capital expenditures, backlog maintenance and recurrent maintenance under budget constraints.

The RFB instituted a study to review road user charges (July, 2001)¹⁰, which made a number of recommendations to address the financing gap in road maintenance activities:

- increase the level of current instruments (fuel levy, overloading fees and transit charges), while ensuring that they remain affordable
- divert revenues from existing charges not accruing to the RF (license fees on commercial and goods vehicles)
- adopt new instruments (introduce license fees for all light vehicles, allocate 20% of the excise duties on fuel to the RF)
- redefine the RF network responsibilities, with an initial focus on the trunk and regional roads and the essential feeder and urban roads
- arrange for interim financing from donors

During a stakeholder workshop, with participation from the private sector and the road users, a clear preference was expressed for increasing RF revenue base through diverting revenues from existing charges¹¹ and introducing new instruments^{12 13}. Inefficient collection mechanisms for overloading and uncoordinated licensing of very heavy vehicles have led to a reduction in total revenues generated and misuse of roads, including damage to shoulders and pavement, spilling of petroleum products on pavements, knocking of guardrails and bridge parts, etc.

The proposal to redefine RF network responsibility with a focus on trunk and regional road network has the potential danger of excluding the vast feeder road network, serving primarily the poor rural community. The absence of a clear framework based on total needs assessment

¹⁰ *Study to Review Road User Charges and Rates for Sustainable Road Financing*, The Road Fund Board, The United Republic of Tanzania, Draft Report (July, 2001).

¹¹ Development of a statutory provision to allow heavy vehicle license fees revenues to be paid into the Fund would require amendment to the Roads Toll Act of 1998. At present, a statutory definition of a heavy vehicle does not exist and the legislation does not provide for a heavy vehicle license fee to be imposed.

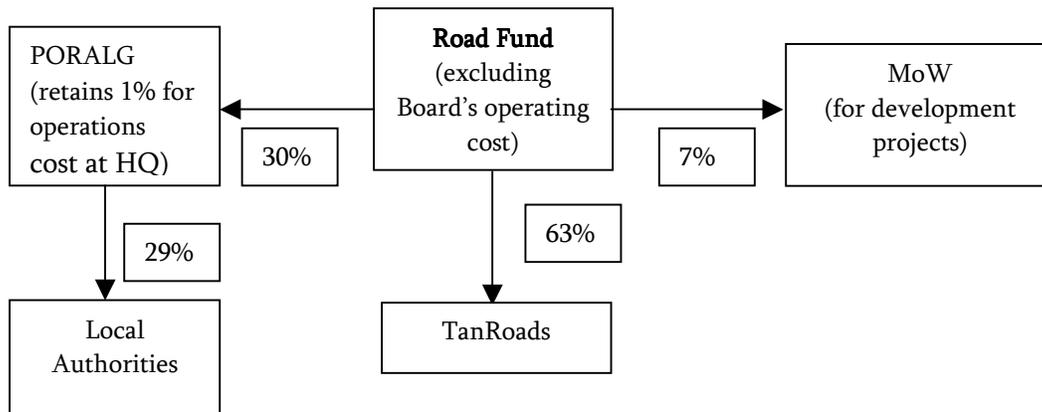
¹² Introduction of motor vehicle license fees would require amendment of the Roads Tolls Act and the Transport Licensing Act, to define a “motor vehicle”, “motor vehicle license” and provisions pertaining to the issuing of such a license, the powers of the licensing authorities in respect of these licenses and the procedure for the application for such a license.

¹³ Diverting a portion of the excise duty component on petrol and diesel to the RF would require approval by the Parliament (without a need for an enabling legislation).

of rural roads may have the unintended consequence of neglecting low-volume rural roads. Adequate financing of rural roads maintenance may be justified on poverty reduction and environmental considerations, even though it may be difficult to quantify the benefits in a formal economic evaluation. The problem of low-volume rural roads is further compounded as more than 80 per cent of the feeder road network is already in a poor condition. Attempts to focus the RF allocations on trunk and regional road network must, therefore, be accompanied by (a) a clear identification of the total maintenance needs of the network, including rural roads; (b) the development of a strategy on how the financing needs of the rural road network would be met, including the delivery arrangements and specific roles and responsibilities of the respective communities; and (c) the development of cost-sharing arrangements based on community ownership for providing maintenance of urban and rural roads.

The Disbursement Process

The criteria used to disburse money to the implementing agencies are shown below. After deducting the RFB expenditure, 30 percent is disbursed to PORALG for urban and district roads¹⁴ and 70 percent to main and regional roads (of which 10 percent is disbursed to the MoW to support development projects and the remaining 90 percent to TanRoads).



Almost 85 percent of the available RF is distributed equally to urban/municipal councils. The current criteria are though considered to be inappropriate, as needs of the local authorities are not uniform and likely to be influenced by a number of factors, including length and quality of the road network, topography, economic potential, location, population size, etc.

¹⁴ Resources are allocated by PORALG to 113 districts and urban councils in the country, including 92 district councils, 9 towns and 12 municipal councils.

Revenue Collection and Release Process

The amount collected by the Tanzania Revenue Authority (TRA) in Dar es Salaam is deposited in the MoF account (see Figure 1 for details on flow of funds). In contrast, the amount collected in the remaining 19 regions are banked in commercial banks and eventually transferred to the MoF accounts. The MoF, in turn, makes allocations to the MoW (for main and regional road maintenance) and to PORALG (for district and urban roads), in the agreed proportion. The money is released to the RF account, which is responsible for disbursing money to the executing agencies (TanRoads and district councils).

The overall transit times between the payments of the fuel levy by the importers and the time when this credit reaches the Road Toll Collection Account at the Bank of Tanzania exceeds 60 days, during which time the funds remain on the TRA accounts. Overall, the process is complicated with a number of entities involved and long transit time for the funds. The time of the releases is quite unpredictable, which results in serious cash flow problems during the implementation of the road maintenance contracts. Significant interest earnings are lost during this process. During the period FY97 to FY99, a total of TSh 109 billion was collected as fuel levy, of which TSh 82 million was actually released by the MoF to the MoW and PORALG. In addition, by June 2000, the MoW had accumulated debts of about TSh 15.4 billion (US\$19.3 million). Attempts to pay these debts from the RF budget would undermine the rationale of setting up dedicated funds for road maintenance.

Recommendations to improve the flow of funds:

- The RFB should enter into formal agreements with each agency in charge of collections for the transfer of funds collected on a regular and stable basis; in the case of fuel levy, arrangements for direct deposit from the fuel importers into the RF account should be developed;
- the TRA should transfer the fuel levy directly to the RF account;
- the overload fines should be centralized in the RF account as soon as collected by the weigh bridge units.

Performance Monitoring

As part of the Establishment Order, TanRoads is to enter into two performance agreements at the commencement of each financial year. **One Agreement** is to be with the RFB constituting a contract for TanRoads to provide maintenance services on the mainland's trunk and regional road network. The Agreement is to state the projected monthly RF allocations to TanRoads for maintenance works and the administrative and management costs associated with providing these services. The Agreement is also to state the specific performance targets to be achieved by TanRoads with respect to maintenance works and outline relevant Government policies to which TanRoads will adhere. **The second performance agreement** is to be with the MoW as a client for TanRoads to provide project maintenance services relating

to projects funded by the Government and donor agencies. The Agreement is expected to specify performance targets relating to procurement times, quality standards and cost control requirements.

The Performance Agreement between the RFB and TanRoads for road maintenance works was first set up during 2001. Given the first year of its operation, the Agreement provided a good basis to monitor works performance. However, there is a need to further strengthen the monitoring framework to ensure that the agreement is realistic, quantifiable and monitorable. Specific issues with the Agreement are:

- (a) Article III "Financial Issues" states that "financial allocations from the road fund will comprise of monthly disbursements from the road funds to be deposited on or before the 30th day of each calendar month..." It is not clear what would be the basis of making the deposits or if the deposit be linked to actual work contracted out (quality and quantity) and what are the contractual requirements.
- (b) The focus is to indicate the road asset value and to show changes in the road condition. It is not clear how the quality and cost of work performed would be measured.
- (c) Article IV "Policy Issues" has identified a number of useful indicators. However, there is a need to quantify these indicators as well as the arrangements to monitor the performance.
- (d) The agreement should be modified to measure the performance of TanRoads along the following parameter: unit costs for maintenance (routine and periodic) and development (by road type); road maintenance expenditure per kilometer (by road type); road development expenditure per kilometer (by road type); proportion of expenditure on planned program for prioritized road network to total expenditure; distribution of time and cost overrun (for maintenance and development works); proportion of administrative recurrent costs (by component—personnel costs and overheads costs) of managing road fund boards and road agencies to total resources disbursed and cost of works executed, respectively; share of contracts awarded to local contractors (number and value); number (and value) of contracts under execution (or completed); number of local people employed in maintenance and development works (by gender); share of force account in road maintenance (by road type); average elapse time from pre-qualification to bid award; number and value of variation orders issued, in relation to total value, etc.
- (e) TanRoads should enter into performance agreements with its senior staff. At present, only a basic performance agreement with the TanRoads Chief Executive has been signed, describing the expected outputs in general terms.

In addition, the RFB is required to enter into performance agreements with the Chief Executive of the TanRoads and other agencies to cover road maintenance works and subsidiary businesses assigned to TanRoads that are financed from the RF.

In general, performance should be measured against: (a) quality, quantity, cost and timeliness of road and bridge maintenance works; (b) transparency and efficiency related to procurement of works, goods and services; and (c) publication of independent technical and financial audits (including the process, who will do it, how will the selection of auditors be made, and how will the information be shared). In addition, performance agreements should be set up for each of the activities involving the use of resources from the RFB. This will require management audit of TanRoads as part of the evaluation process, to quantify the overall performance of the agency and its staff as measured against specific and agreed set of expectations.

For the Agreements to be effective, they must include penalties (and incentives) for noncompliance (conformity) of the agreed targets for specific works. Non-compliance at the overall Agency level should result in restructuring of the Agency mandate and examining alternative ways of doing business. The penalty for inadequate performance at the individual staff level should be dismissal from the job. Basically, TanRoads should serve as service provider (procurement and contract management/ administration), and be measured and judged as such.

Comments

Since setting up the RF and the RFB, the amount for road maintenance has almost doubled over the past few years—from TSh 25.4 billion in the FY97 to TSh 50.1 billion in the FY02. The fuel levy (the dominant source of funding for the RF) is set at USc 9.0 which compares favorably to most SSA countries—Zambia (USc 4.0), Ethiopia (USc 1.0) and Malawi (USc 6.0). However, the Tanzanian RF is still stated to be addressing less than 30 percent of the road maintenance needs. A number of factors explain this low performance of the RF:

- (a) unlike most other RMI countries with a RF, the one in Tanzania is utilized not only to meet the administrative costs of the RFB and the Secretariat but also some expenses of the road executing agencies (TanRoads and local government);
- (b) as part of the Act, 10 percent of the RF resources are used for road development, upgrading and for local costs of compensation and counterpart funding for donor financed projects;
- (c) RF resources are utilized to pay for development activities of the Board, i.e., carrying out monitoring evaluations, financial and technical auditing, tracking of road fund, developing guidelines, etc;

- (d) as a result of the “maintenance backlog” due to little funding in previous years, the RFB comes under increasing pressure to improve poor road quality by providing emphasis on spot improvements and emergency works, further comprising the available budget.
- (e) the road maintenance needs are calculated using a theoretical exercise, under the assumption that all roads are in a condition which require only routine and periodic maintenance.

The road maintenance needs should be evaluated in the context of an overall road maintenance strategy, including amounts required to maintain the quality of good roads and the holding maintenance required to keep other roads in a passable condition. Greater efficiency in the use of available resources, a recommitment of the available funding to address only the road maintenance needs (which would require an amendment to the RF Act) and exploring alternate mechanisms to address road and institutional development needs (either through donor financing or government transfers) would greatly increase the maintenance capability of the existing RF budget. This requires that the RF Board focus its efforts on (in addition to increasing the amount of money available): (a) ensuring that the available resources are put to the most efficient use, by closely monitoring the performance of TanRoads and PORALG; (b) instituting improved financial management systems in place; and (c) developing appropriate standards and an overall framework for road maintenance.

V. OBJECTIVE ACHIEVEMENTS

Quality of the Road Network

The Highway Ordinance recommends network classification in the following five categories¹⁵:

- *Trunk roads.* Primarily national and international through routes that link several regions and provide access to important border posts and ports
- *Regional roads.* Secondary routes connecting district centers in a region or connecting another important center to a trunk road

¹⁵ A uniform classification and definition of different roads does not exist in the legislation—The Motor Vehicles Insurance Ordinance, the Highway Ordinance and Transport Licensing Act (1973). The Roads Toll Act (Amendment No. 2) 1998 defines “classified roads” as any public road including trunk, regional, urban and feeder roads. The “district roads” identified in the Roads Toll Act as the responsibility of PORALG are not defined in the legislation and not explicitly included in the definition of “classified roads”.

- *District roads.* Connecting district headquarters to higher class roads, or connecting important centers within the district or to a higher class road
- *Feeder roads.* Village access roads linking important centers within a ward to the rest of the network
- *Urban roads.* Roads within a city, municipality or a township

In addition, there are numerous *unclassified roads* which include paths, tracks, national park roads, estate roads, private roads, etc.

The latest road condition survey was carried out in 1999, and although the value and accuracy of the data is uncertain, it does provide an overview of the trend in development¹⁶. A visual condition survey of the paved trunk road network was carried out in connection with Phase 1 of the 10 year Road Sector Development Program (RSDP). Depending on the IRI thresholds selected for good and fair roads, only between 5 and 28 percent of the paved trunk roads are found to be in good condition.

Table 2: Condition of the road network, 1997

Road Type	Good	Fair	Poor	Total
Trunk Roads				
Paved	2,317	1,163	441	3,921
Unpaved	776	2,858	2,675	6,309
Regional Roads				
Paved	22	156	45	223
Unpaved	3,730	6,871	13,876	24,477
District/Urban Roads	3,995	9,755	36,250	50,000
Total Roads	10,840	20,803	53,287	84,930

Source: District roads survey data, 1997

A comparison of road condition surveys between 1997 and 1999 (Public Expenditure Review, 2000) suggests that heavy investments by donors in the rehabilitation and reconstruction of paved trunk roads has significantly improved quality of roads, though insufficient

¹⁶ In the past, Regional Engineers have been responsible for carrying out annual condition surveys of the road network in their respective region. The data was then compiled by the MoW and used to allocate and distribute road maintenance funds to regions. The condition surveys were carried out by visual inspection or from the regional engineer's knowledge of the road, without any scientific evidence in the form of roughness measurements, bearing capacity, etc. The results are therefore dependent on a subjective view and vary from region to region. The method of allocating maintenance funds to the regions was based on length of roads in good condition and is likely to have created an optimistic presentation of the road conditions.

maintenance has further deteriorated the remainder of the trunk and regional road network. The road network in the country is generally poor, especially for unpaved roads. Regional and district roads are in a worse condition than trunk roads.

No detailed road condition survey was carried out in connection with the handing over of maintenance obligations to TanRoads, which would have enabled a better assessment of its future performance and impact of maintenance expenditure.

Operational Efficiency

One of the declared objectives of the second-generation road funds is that they would result in efficiency of implementation. The evaluation of the quality of maintenance works performed during 2001 should be seen in view of the evolving role of the new roads agency (TanRoads) which has been in existence for just over a year. There have been organizational problems to resolve, which have compromised the planning and operation capacity of TanRoads.

Supervision and reporting arrangements. Records of site activities are kept by all regional offices, though the information is not maintained in a standardized format. The contractors are required to submit payment certificates checked by the Engineer. The Engineer makes changes to the certificate and payment is made on the basis of the amended certificate, with the agreement of the contractor. For small contractors, the certificate is based on a joint measurement by the site agent and the TanRoads inspector. On reporting—the annual business plans are prepared by each Regional Office containing information on the road network, description of works to be carried out and funding requirements. Regional quarterly reports are prepared by the regional offices to provide the head office with details of the works carried out in the past three months. The reports are used to monitor expenditure of funds and the physical progress of works. However, the reports are used for purely administrative purpose and do not contain information on programmed versus actual works carried out or the quality of works or identifying reasons for choosing the particular engineering solution.

Trunk and regional roads. Over the past year maintenance needs have been established on the basis of limited surveys necessary to determine the extent of works required and the quantities of different work items. There is an absence of annual rigorous road condition survey to determine road characteristics. A summary of funds provided and works carried out by TanRoads are given in Tables 3 and 4, respectively. In four of the regions, more funds were released than programmed. In regions such as Dodoma and Arusha, additional funding was made available to carry out emergency repairs to roads damaged by unusual heavy flooding during the rainy season. No information is available on the amount of funds actually disbursed. Large amounts of funds remain undisbursed due to late release of funds to the regions. In general, the number of works completed closely match the programmed works, though large variations can be observed among different regions—for some regions (Arusha,

Dodoma) works completed far exceed the programmed works, while others reflect a significant shortfall.

Table 3: Summary of funds provided to TanRoads regions

Region	Programmed Funds (TSh m)	Funds Provided (TSh m)	Funds Provided as % of Programmed Funds
Arusha	1224	1876	153
Dar es Salaam	1450	1641	113
Dodoma	814	1675	206
Mara	708	613	87
Mbeya	1311	1069	82
Mtwara	891	655	74
Mwanza	874	598	68
Ruvuma	1008	1139	113
Total (TSh m)	8280	9266	112
Total (USD)	9.5	10.6	112

Source: Road Funds Technical Audit of Road Maintenance, Draft Final Report (August, 2001)

Table 4: Summary of works carried out by TanRoads

Region	Number of programmed works	Number of works commenced or completed
Arusha	23	36
Dar es Salaam	47	39
Dodoma	17	24
Mara	6	6
Mbeya	65	65
Mtwara	22	22
Mwanza	40	25
Ruvuma	33	33
Total	253	250

The works reveal improvements in road surface over the past years, though the technical audit identified a number of shortcomings: (a) insufficient availability of resources has compromised the quality and intensity of works required. For example, application of surface dressing, patching and resealing on roads requiring rehabilitation, has already started showing signs of distress. On road sections requiring heavy grading work, application of light grading has not resulted in any significant improvement to the road; (b) insufficient attention given to reinstatement of longitudinal drainage, both because of lack of adequate funding as well as capacity of petty contractors; (c) the extent of programmed works was affected by the need to

carry out unforeseen emergency works; and (d) delays in carrying out programmed works due to funding problems (funds have been made available too late and the quantity of funds is substantially less than necessary to do the works).

The technical audit identified the need to develop standard contracting and specification procedures specifically related to:

- preparation of standard conditions of contract applicable to all TanRoads contracts
- adoption of standard specifications for all road maintenance works, with special specifications included for the particular types of work to be carried out
- identification of full description of the works to be carried out, including specification of works to be carried out
- preparation of detailed strip maps giving the location of works

In addition, there is a need to adequately program for the execution of road maintenance activities. Currently, there are more than 1,500 different maintenance contracts on-going. Given the amount of administrative and supervision costs involved in managing these many contracts, this is a serious drain on limited funding available for road maintenance. There is a need to develop a new strategy for maintenance, involving perhaps area maintenance contracts for a long period (say 5 years) and managed by a management consultant (obviating the need for maintaining regional offices) under the overall guidance and supervision provided by TanRoads at the headquarter. In such arrangement, the huge overhead costs would be reduced in addition to lowering the number of small contracts (and associated possibility of mismanagement and failures), improve quality of works and provide continuity of maintenance. Guaranteed work for an extended period of time would also provide confidence to local contractors to invest in equipment.

District, feeder and urban roads. The funds required for the district council's programmed works in each region are compared with the funds received from different sources¹⁷. The funds provided are released in four instalments (October, January, April and June). Most councils receive between 50 and 80 percent of the programmed funding requirements. In the FY01, Kinondioni municipal council (Dar es Salaam region) received almost four times the programmed budget for specific road improvements. The low ratio (about 50 percent) of funds actually disbursed to funds received is because of: (a) late receipts of funds and reluctance on the part of councils to make specific commitments prior to receiving them; and (b) inadequate communication between PORALG, the RFB and the Councils on the use of money.

¹⁷ In addition to the RF allocations, district councils receive funds from: (a) grants or block grants from the central government; and (b) grants from donors.

Table 5: Summary of funds provided to District Councils (by region) during the FY01

Region	Programmed Funds (TSh M)	Funds Received (TSh M)	Funds received as % of programmed funding	Funds disbursed
Dar es Salaam	360.9	489.2	135.5	61.5
Dodoma	607.3	444.5	73.2	425.2
Mwanza	883.2	472.5	53.5	306.0
Ruvuma	553.8	230.6	41.6	81.7
Total (TSh M)	2405.2	1636.8	68.1	874.4
Total (USD M)	2.8	1.9	68.1	1.0

The Councils prepare a list of works to be carried out, which is forwarded to PORALG. PORALG uses the information to prepare the annual work program and enters into a performance agreement with the RFB on the amounts of works to be carried out based on available funding. The programmed works for the FY01 and the works actually carried out are shown in table 6. On average, less than 40 percent of the works programmed were actually carried out because of: (a) delays in funding availability; (b) inadequate capacity in the councils; and (c) attempts to keep the funds until a large enough sum had been collected for some major works. It may be mentioned that this is the first year of operation of funding local authority road maintenance by the RFB and there are organizational problems to resolve.

Table 6: Summary of works carried out by Councils (by region) in 2001

Region	Number of Works Programmed	Number of works started or completed
Dar es Salaam	21	5
Dodoma	25	19
Mwanza	120	40
Ruvuma	44	16
Total	210	80

The quality of works carried out in the district councils¹⁸ is affected by: (a) a lack of uniform standards followed by different Councils; (b) a lack of donor coordination and the use of different mechanisms to channel funding for district roads; (c) an insufficient attention to road drainage due to insufficient funds; (d) different interests influence the decision

¹⁸ The council engineer normally prepares design, drawing bills of quantities for all works. The engineers have access to local TanRoads engineer and Regional Secretariat Engineer for discussing engineering problems.

concerning the priority of road maintenance works. Most Councils do not follow the approved road works program due to interference by Councillors. Councillors influence the decisions made by the council engineer related to the type of intervention or the award of contract; (e) limited resources are often spread over a large area, resulting in ineffective maintenance of all road sections; (f) a lack of transparency in works procurement; and (g) an inadequate maintenance of recently rehabilitated roads. Key areas requiring further attention are:

- Need for a rigorous economic evaluation of the engineering solutions to improve quality of the road network. As for patching and spot resealing, though necessary to maintain the road, the expenditures of funds on this activity may not be an effective use of funds. In contrast, funds spent at the appropriate time on full reseal may avoid the need for ad hoc patching of the road.
- Need to strengthen the capacity of Council Engineers.
- Increase in funding should be accompanied by improvements in the capacity of road maintenance authorities to carry out their work effectively and by increases in the capacity of the construction industry to carry out the works.
- Need for standardization of procurement process and contract documentation.

Recommendations

The district and urban roads present a special challenge because of the long history of negligence resulting in a serious deterioration in the quality of roads. The urgent need is to develop institutional arrangements to plan, program, implement and monitor disbursements to district Councils. As part of the local government reform program, responsibility for managing district and urban roads was delegated to the local government. However, any efforts at decentralization must be preceded by making provisions for technical, financial and management capacity of districts to plan, design and implement sustainable programs and projects with high civic participation. Political devolution without local capacity to absorb the increased fiscal and political power and accountability of actions is likely to result in waste and increased infrastructure deficits. A number of activities are required to ensure that the resources allocated to Councils are disbursed in the most efficient manner, including:

Financing arrangements. Currently there is a lack of donor coordination in the use of mechanisms to channel funding for district and urban roads. The RFB is vested with the responsibility to disburse 30 percent of its resources for district/urban roads maintenance and for planning and monitoring the use of money. Any funding for district roads outside of this arrangement (either through government transfers or donors contribution) would not meet the same criteria for allocation and evaluation, resulting in sub-optimal use of resources. It is recommended, therefore, that all contributions from different donors and government transfers must be channeled to

the Councils through a common framework, within the overall investment program, currently under preparation. The investment program should be developed with a focus on: (a) *network integration*, to ensure that the council and urban roads complement and connect to the national road network; (b) *network preservation*, with the first focus on maintaining existing road network and improving the share of “good” roads; and (c) *servicing communities*, to ensure that communities in the remote parts of the country are better connected to other municipal services (schools, hospitals, etc.) and to the district market to ensure that road investments lead to poverty alleviation.

Implementation Arrangements. In view of (a) the limited capacity of the local councils to manage and plan the local road network effectively; and (b) the small size of the councils, which do not justify recruiting skilled personnel required to plan and manage a road, the recommended approach is to form a group of councils (Councils and Urban Technical Coordinator Office) to create better economies of scale and a common pool of technical skill and equipment. These technical support units can form the basis of a private sector contracting industry at the local government level. The technical support office will act as an “Engineer” for implementation of the road maintenance components and provide technical support to the councils.

Financial Management Systems

- (a) **Road Fund.** There is a lack of systems and procedures for managing the RF particularly the financial management systems, operations, procedures for dealing with the implementing and collection agencies, staff regulations. The RF financial statements for the year ending June 30, 2000 were audited by the Office of the Controller and Auditor General of the United Republic of Tanzania. The audit examination revealed discrepancies in the statements specifically related to poor accounting and store records, including unreconciled bank statement or balances between the regional offices and the RF account, poor financial management and internal controls.
- (b) **TanRoads.** The agency has adopted the same financial management system as the MoF (Platinum system) and its implementation is in progress. The system needs however to be further strengthened as follows: (i) the financial management system covers the payment cycle without regard to the value of the contract, often resulting in overpayment without any checks and balances—this makes it difficult to establish a quality control process and monitor the contract progress; (ii) the voucher system is not automated resulting in duplication of payment activities and manual interventions in each stage of the payment process; and (iii) the current financial reporting system is not in accordance with the international accounting standards—the revenues are recorded on a cash basis but the expenses are shown on a partial

accrual system whereby outstanding work certificates are reported as a part of the expenses for the year. In addition the regions and the head quarter follow different methods of reporting making it difficult to reconcile physical performance versus financial performance.

Resource Allocation

It is not ultimately important whether road sector funding is allocated through the RF or from the national budget, only that the source of funding is adequate and stable. The Government has established a RF without providing the necessary revenue base and apart from topping up of the development budget, refrained from providing additional maintenance expenditure from the national budget. The total domestic revenue in 2001 has grown by 11 percent from the previous year, whereas recurrent expenditure allocated to TanRoads has grown by less than 1 percent (Table 7). Most of the increase in government allocation to the MoW was for development works.

Table 7 :Resource allocations to the road sector (excluding local authorities)
(TSh billion)

	FY98	FY99	FY00	FY01	FY02
Total Government Revenue	661.2	689.3	777.2	861.4	
Government allocation to Roads Dept (MoW)	18.3	19.3	29.3	39.2	29.1
Road Fund allocation to MoW	15.0	31.8	31.0		34.9
Donor allocation to MoW	4.1	19.1	31.8		102.8
Total allocation to MoW	37.6	70.2	92.0		166.8

Source: Government of Tanzania and The World Bank, Public Expenditure Review, Volume I, Main Report, January 2001

Study to Review Road User Charges and Rates, Draft Report, United Republic of Tanzania (July 2001)

During the FY01, TanRoads disbursed a total of TSh 81.6 billion, of which TSh 14.9 billion was for periodic and routine maintenance, TSh 52.5 billion for other development works and TSh 14.2 billion for agency costs. Of the total amount, the RF contributed 25.6 billion to TanRoads. Its estimated operating cost for the FY02 is TSh 7.9 billion, which is about 25 percent of the total expected RF revenues for the year. The MoW is expected to provide TSh 4.1 billion to TanRoads to meet the operating expenses.

VI. CONCLUSIONS

The creation of TanRoads together with the formation of the RFB represents the first stage of the road sub-sector reform program in Tanzania. This program is expected to be refined further based on lessons of experience. A new Roads Act will be formulated to integrate financing, management and highway regulations. Drafting of the new Roads (Highway) Act is in progress. TanRoads is still in an early phase of establishment and is currently undertaking large donor funded transitional activities to improve the information and management systems. The full potential and benefits of the Agency are expected to take a few years to materialize.

To put the road management and financing in Tanzania on a sustainable basis, a number of key actions are required as the reform program progresses to the next stage:

- **Management.** Setting up a semi-autonomous road agency as the service provider is not by itself sufficient to ensure that efficient delivery mechanisms are put in place. It is equally important to ensure that the agency has a detailed business plan, a well defined work program, a clear statement of purpose and management objectives, operates on sound business practices and has clear lines of responsibilities with the planning and financing agencies. The agency staff should be recruited on a competitive basis under performance contracts, with direct relevance to the program on-hand. The agency should grow with the work program, have a highly qualified staff with a balanced mix of key specializations, including environment, procurement and social science specialists. There is also a need to clearly identify the transition period for moving road sector operations from the MoW to TanRoads in a timely and institutionally organized framework and establish monitoring indicators for its performance based operations and for performance of its entire senior management staff.
- **Responsibility.** Institutional responsibility for planning, programming, implementing and monitoring disbursement needs to be clearly identified. Efforts at decentralization must be preceded by making provisions for technical, financial and managerial capacity of districts with high community participation. Of equal relevance is the need to develop a common framework of the overall investment program with participation of government agencies and different donors. Improved inter-sectoral coordination needs to be achieved to mainstream social impact monitoring and to place transport within the core of the poverty dialogue agenda. In addition, there is a need to develop clearly defined performance agreements between the RF and TanRoads, the MoW and district councils. The agreements should identify the set of responsibilities and obligations on part of each of the agency, in the performance of their functions. The constraints faced in implementation of the road reform program, in part, results from inexperience of

the implementation agencies—road fund office has little prior experience in different elements of the reform program; TanRoads regional managers need to be exposed to modern road management practices and performance based contractual procedures.

- **Financing.** The past year has seen a concerted effort to provide substantially higher funding for road maintenance through the RFB as compared to previous years. However, the available funds are insufficient to properly maintain the road network. Inability of the RF budget to fully address road maintenance needs is in response to the “maintenance backlog” resulting from little funding provided for maintenance over the past decade. As a result, most of the road network requires substantial amounts of rehabilitation works carried out before they can be in a maintainable condition. Efforts to improve the poor state of the road network would require *either* that maintenance funding is used for reconstructing parts of the network and, therefore, any estimate of resources required for maintenance are programmed beyond normal maintenance works *or* funding for rehabilitation and emergency works is provided from other sources. Over the past decade, a number of development projects have been funded by donor agencies, which appear to be close to physical completion. The development program will obviously generate an increased demand for maintenance as more road length is brought into a maintainable condition. In addition, The Government is in the process of developing a 10 year Road Sector Development Program (RSDP), for which heavy donor support will be sought. It is recommended that the Government commit itself to providing an annually increasing minimum level of maintenance and development funding in future—the funding could be a combination of RF revenue and national budget sources.
- **Ownership.** In spite of a RFB with private sector and user representation, the freedom they have to redistribute national resources from other sectors to road maintenance is severely constrained. The country is not able to fully fund the desired level of road maintenance because of residual controls of the Ministry of Finance over the level of the fuel tax levy. Absence of detailed knowledge of the road assets, required maintenance programs and low absorptive capacity constrains implementation of the road reform program.

Figure 1: Fuel Levy Collection and Release Process

